

ABSTRACT

5 This invention provides modified phycobilisomes and phycobilisome complexes that are supramolecular complexes with diverse spectral properties, and which may optionally be immobilized on a manufactured solid support. The invention provides a versatile set of highly sensitive signal-generating systems and conjugates that may be used as highly detectable tracers and labels, or in biotransducers comprising phycobilisomes or phycobilisome complexes, and also provides methods for performing specific binding assays using signal-generating systems comprising phycobilisomes as detectable labels. The embodiments of the invention provide the art with an extremely sensitive, nonisotopic detection means for assaying analytes and for sensing molecular events and environmental conditions.